

Claims

1. A progressive dot printing ink-jet process comprising the steps of applying a first ink drop to a substrate and subsequently applying a second ink drop on to the first ink drop without intermediate solidification of the first ink drop, wherein the first and second ink drops have a different viscosity, surface tension or curing speed.
2. A progressive dot printing ink-jet process as claimed in claim 1, wherein further ink drops are applied sequentially to the combined first and second ink drops without intermediate solidification of the first and subsequent ink drops.
3. A progressive dot printing ink-jet process as claimed in claim 1 or 2, wherein at least four ink drops are applied sequentially.
4. A progressive dot printing ink-jet process as claimed in any preceding claim, wherein the first and subsequent ink drops are different colours.
5. A progressive dot printing ink-jet process as claimed claim 4, wherein the ink drops are cyan, magenta, yellow and black.
6. A progressive dot printing ink-jet process as claimed in any preceding claim, wherein the viscosity of the first and last ink drops applied varies in a graduated manner within a range of from 10 up to 30 mPas or 30 down to 10 mPas.
7. A progressive dot printing ink-jet process as claimed in any preceding claim, wherein the surface tension of the first and last ink drops applied varies in a graduated manner within a range of from 20 up to 40 dynes/cm or 40 down to 20 dynes/cm.
8. A progressive dot printing ink-jet process as claimed in any preceding claim, wherein the cure speed of the first and last ink drops applied varies in a graduated manner within a range of from 20 up to 70 m/min or 70 down to 20 m/min.

9. A set of ink-jet inks suitable for use in a progressive dot printing ink-jet process comprising at least two inks having a different viscosity, surface tension or curing speed.
10. A set of ink-jet inks as claimed in claim 9, wherein the ink-jet inks are cyan,
5 magenta, yellow and black.
11. A set of ink-jet inks as claimed in claim 9 or 10, wherein the viscosity of the ink-jet inks varies in a graduated manner within a range of from 10 up to 30 mPas or 30 down to 10 mPas.
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12. A set of ink-jet inks as claimed in any of claims 9 to 11, wherein the viscosity of the ink-jet inks varies in a graduated manner within a range of from 20 up to 40 dynes/cm or 40 down to 20 dynes/cm.
13. A set of ink-jet inks as claimed in any of claims 9 to 12, wherein the viscosity of the ink-jet inks varies in a graduated manner within a range of from 20 up to 70 m/min or 70 down to 20 m/min.
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14. An ink dispenser holding a set of ink-jet inks as claimed in any of claims 9 to 13.